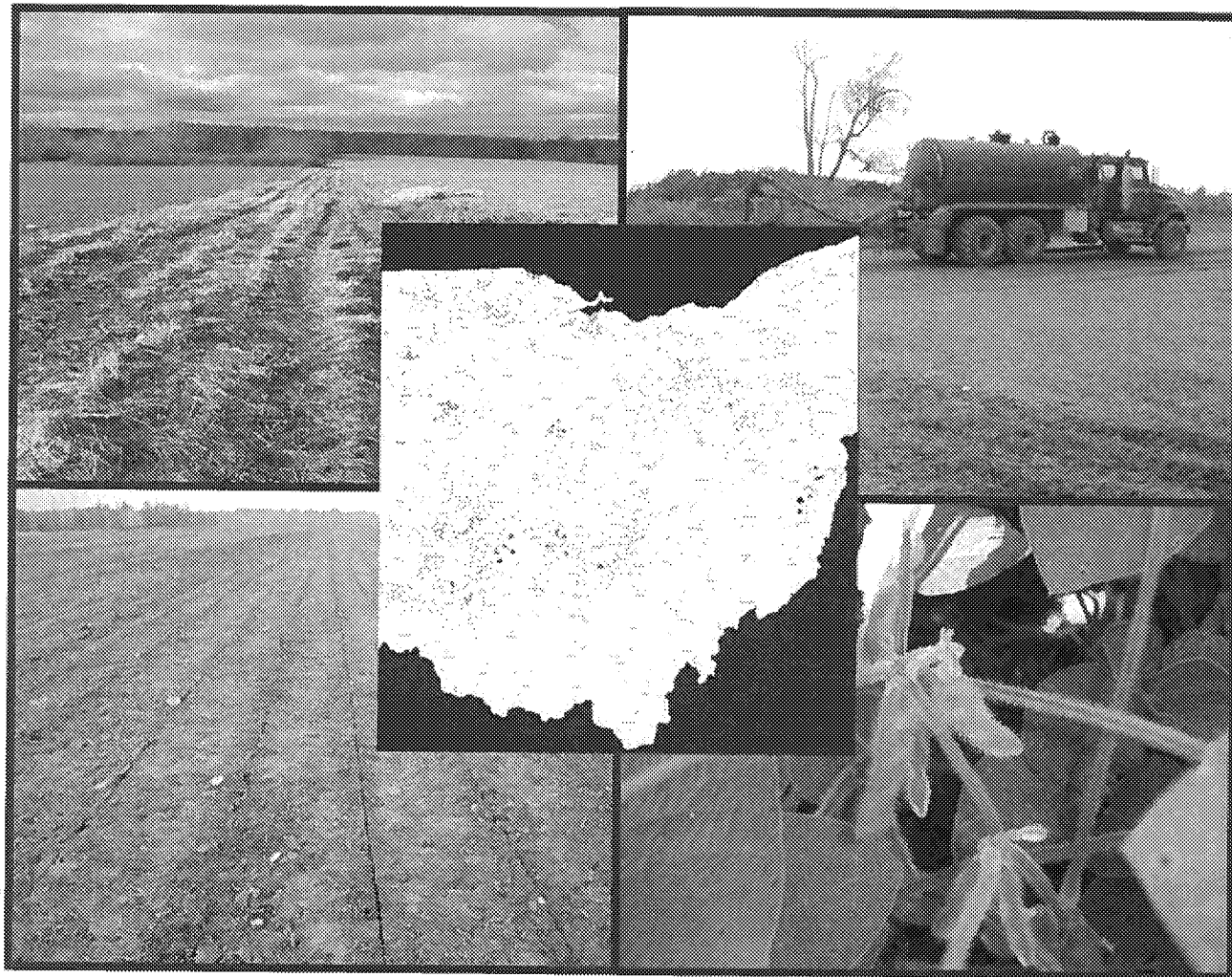


Application for Authorization: Class B Biosolids Beneficial Use Sites




Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Biosolids Treatment Works Information

Treatment works name: Emerald BioEnergy		
Ohio NPDES permit #: 4IN00204*AD		County: Morrow
Mailing address: 461 State Route 61		
City: Marengo	State: OH	Zip: 43334
Operator of record: Taylor Faecher		
Telephone number: (419) 253-5300		
Email address: tfaecher@renergy.com		

Certification Statement

1. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
2. I have read and understand Chapter 3745-40 of the Ohio Administrative Code (OAC) and I agree to beneficially use biosolids in accordance with all applicable beneficial use requirements and restrictions established in Chapter 3745-40 of the Ohio Administrative Code.
3. I agree to only beneficially use biosolids that have satisfied a pathogen reduction alternative and a vector attraction reduction option and have metals concentration below the pollutant ceiling concentrations as established in Chapter 3745-40 of the Ohio Administrative Code.
4. I agree to maintain all applicable records established in Chapter 3745-40 of the Ohio Administrative Code.



Signature

2 / 12 / 18

Date

This form shall be signed by the operator of record for the treatment works, be an original signature, not a copy, and must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

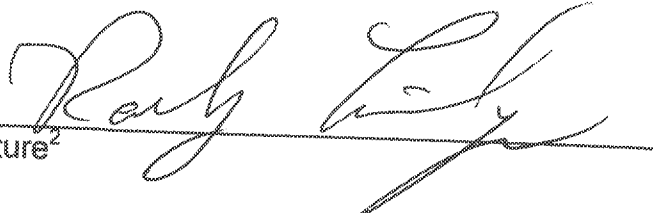
Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Owner Consent for Beneficial Use

Beneficial use site owner ¹ : RANLY LEIBENBERGER		
Mailing address: 5606 STRAMTON RD		
City: ARLY	State: OH	Zip: 43003
Telephone number: 740-272-7094		
Email address: RLEIBER15@AOL.COM		

Certification Statement

1. I agree to allow biosolids generated by the treatment plant identified on Form BUA-1 to be beneficially used on my property at agronomic rates.
2. I agree to allow federal, state and local regulatory staff access to the beneficial use site for the purposes of inspecting and authorizing the beneficial use site, beneficially using biosolids, and collecting and analyzing samples from the beneficial use site. I reserve the right to ask the above parties for proper identification at any time.
3. I certify that I am holder of legal title to the property described on application form BUA-5, or am authorized by the holder to give consent for the land application of biosolids, and that there are no restrictions to the granting of consent under this form.


Signature² _____ Date 2/18/18

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

¹ For purposes of this form, "beneficial use site owner" means the person who owns the legal rights to the proposed beneficial use site.

² In the event the owner of the beneficial use site changes, Form BUA-2 must be revised and resubmitted to Ohio EPA.

Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Beneficial Use Site Operator Consent for Beneficial Use

Beneficial use site operator ¹ : <u>RANDY LEINBERGER</u>		
Mailing address: <u>5606 Steamtown Rd</u>		
City: <u>Ashley</u>	State: <u>Oh</u>	Zip: <u>43003</u>
Telephone number: <u>740-272-7094</u>		
Email address: <u>RIBERG15@AOL.COM</u>		

Certification Statement

I agree to be responsible for complying with all applicable beneficial use requirements established in Chapter 3745-40 of the Ohio Administrative Code.

Randy Leinberger
Signature²

2 1 18 / 1 18
Date

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

¹ For purposes of this form, "beneficial use site operator" means the person who plants, grows, harvests or otherwise manages feed crops, fiber crops, food crops or pasture land on the proposed beneficial use site.

² In the event the operator of the beneficial use site changes, Form BUA-3 must be revised and resubmitted to Ohio EPA.


Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Beneficial User Information

Beneficial user ¹ : Emerald BioEnergy		
Contact person: Taylor Faecher		
Mailing address: 461 State Route 61		
City: Marengo	State: OH	Zip: 43334
Telephone number: (419) 253-5300		
Email address: tfaecher@renergy.com		

Certification Statement

I agree to be responsible for complying with all applicable beneficial use requirements established in Chapter 3745-40 of the Ohio Administrative Code.



Signature²

2 / 12 / 18

Date

Original signatures, not copies, must be less than one year old at the time the application for transfer is submitted to Ohio EPA for review.

¹ For purposes of this form, the beneficial user means the person who sprays or spreads Class B biosolids onto the surface of the beneficial use site, injects below the surface of the beneficial use site, or incorporates into the soil of the beneficial use site, for the purpose of providing an agronomic benefit.

² In the event the beneficial user of the beneficial use site changes, Form BUA-4 must be revised and resubmitted to Ohio EPA.

Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Ohio EPA Application for Authorization (8/15)

Form BUA-4

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Beneficial Use Site Information

Ohio EPA Site I.D. (Ohio EPA Use Only)

Field site I.D.: DES-05-02																	
Beneficial use site location: N o r t h o f 2 2 4 a n d E a s t o f 2 4 5																	
County: Delaware		Township:															
Latitude: 40.39469		Longitude: -82.93572															
Total acreage proposed for beneficial use: 87																	
Type of beneficial use to be performed:		Ground slope percent:															
Surface application <input type="checkbox"/>		Less than 15% <input checked="" type="checkbox"/> 15% to 19.9% <input type="checkbox"/>															
Injection or immediate incorporation <input checked="" type="checkbox"/>		Greater than 20% <input type="checkbox"/>															
Soil pH (s.u): 6.26		Soil phosphorus (mg/kg): 35.33															
Bedrock depth (feet): 3.24 ft		Bray Kurtz P1 <input type="checkbox"/> Mehlich 3 <input checked="" type="checkbox"/>															
Type of crops to be grown:																	
		<table border="1"><thead><tr><th>Crop Type</th><th>Expected Yield</th></tr></thead><tbody><tr><td>Corn</td><td>1 8 0</td></tr><tr><td>Soybeans</td><td>5 5</td></tr><tr><td>Wheat</td><td></td></tr><tr><td>Pasture</td><td></td></tr><tr><td>Hay</td><td></td></tr><tr><td>Other:</td><td></td></tr></tbody></table>		Crop Type	Expected Yield	Corn	1 8 0	Soybeans	5 5	Wheat		Pasture		Hay		Other:	
Crop Type	Expected Yield																
Corn	1 8 0																
Soybeans	5 5																
Wheat																	
Pasture																	
Hay																	
Other:																	
Soil Types:																	
Soil Unit Symbol	Soil Unit Name	Hydrologic Soil Group	Flooding Frequency Class														
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	D	N o n e														
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	D	N o n e														
P w A	Pewamo silty clay loam, 0 to 1 percent slopes	D	N o n e														

Division of Surface Water
Application for Authorization: Class B Beneficial Use Sites

Ohio EPA Application for Authorization (8/15)

Form BUA-5

Page 5 of 6

Applicable isolation distances:

Type of Isolation Distance			
Surface waters of the state	<input checked="" type="checkbox"/>	Sinkhole/UIC class V drainage	<input type="checkbox"/>
Occupied building	<input checked="" type="checkbox"/>	Private potable water source	<input type="checkbox"/>
Medical care facility	<input type="checkbox"/>		

Are any endangered species or endangered species habitats located on the beneficial use site?

☐ Yes ☒ No

If "Yes" is marked, list the types of endangered species or endangered species habitat:

--	--

Have biosolids been beneficially used on the site since July 20, 1993?

☐ Yes ☒ No

If "Yes" is marked, list the biosolids generators and years beneficial use occurred:

Generator	NPDES permit No.	Year of Beneficial Use

The application must also include all of the following:

- ☐ A soil map of the proposed beneficial use site;
- ☐ A frequency flood class map of the proposed beneficial use site;
- ☐ An aerial map of the proposed beneficial use site that clearly identifies the entrance of the beneficial use site from the nearest road and all applicable isolation distances as established in Chapter 3745-40 of the Ohio Administrative Code;
- ☐ A vicinity road map at or near the township level that clearly identifies the proposed beneficial use site with all roads labeled; and
- ☐ A copy of the most recent soil test results identified in this form.



DES-05-02 Setback Distance



0 0.05 0.1 0.2 Miles

Setback Distance	
DES-05-02	
Total Area: 56.63 acres	
Setbacks:	
Residence - 300' Buffer	3.72 acres
Residence - 100' Buffer	0.03 acres
Surface Waters - 33' Buffer	1.19 acres
Total Setback Area:	
4.94 acres	

Soil Map



Map Scale: 1:7,920 if printed on A landscape (11" x 8.5") sheet.

0 100 200 400 600 Meters

0 350 700 1400 2100 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	34.1	60.1%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	7.4	13.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	15.1	26.7%
Totals for Area of Interest		56.6	100.0%

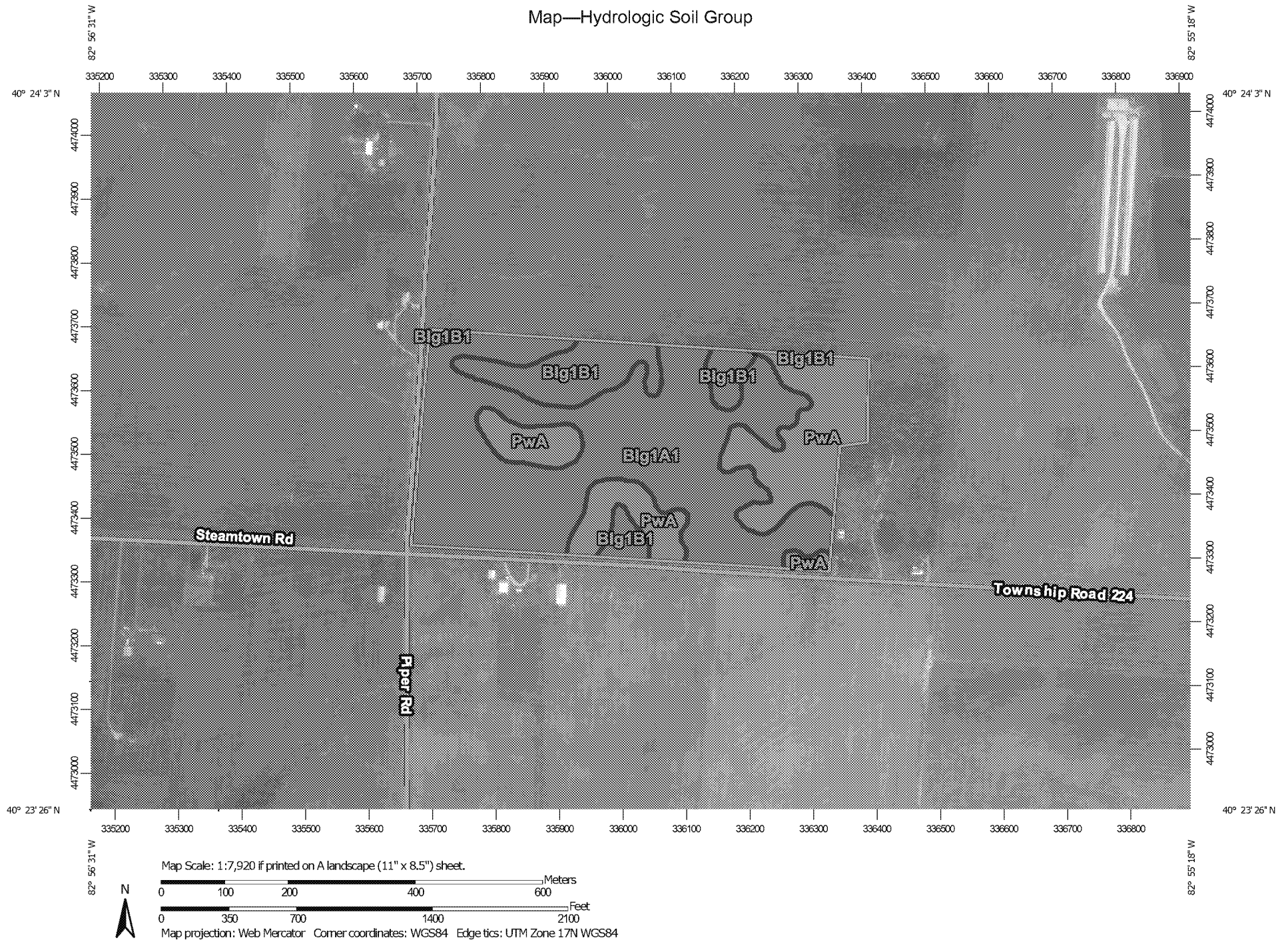
Map—Depth to Any Soil Restrictive Layer



Table—Depth to Any Soil Restrictive Layer

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	99	34.1	60.1%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	94	7.4	13.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	>200	15.1	26.7%
Totals for Area of Interest			56.6	100.0%

Map—Hydrologic Soil Group



Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	D	34.1	60.1%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	D	7.4	13.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	C/D	15.1	26.7%
Totals for Area of Interest			56.6	100.0%

Map—Flooding Frequency Class



Table—Flooding Frequency Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Blg1A1	Blount silt loam, ground moraine, 0 to 2 percent slopes	None	34.1	60.1%
Blg1B1	Blount silt loam, ground moraine, 2 to 4 percent slopes	None	7.4	13.1%
PwA	Pewamo silty clay loam, 0 to 1 percent slopes	None	15.1	26.7%
Totals for Area of Interest			56.6	100.0%

SOIL AUDIT AND INVENTORY REPORT

Name Ringler Energy City Cardington State OHIndependent Consultant Brookside Consultants of Ohio, Inc. Date 03/05/2018

Sample Location <u>LEIEN 60</u>		1	2	3		
Sample Identification						
Lab Number		0195-1	0196-1	0197-1		
Total Exchange Capacity (ME/100 g)		12.30	13.97	18.67		
pH (H ₂ O 1:1)		6.7	5.7	6.4		
Organic Matter (360°C LOI) %		2.46	3.58	4.50		
Estimated Nitrogen Release lb/A		69	86	95		
ANIONS	SOLUBLE SULFUR* ppm	5	6	6		
	MEHLICH III lb/A P as P_2O_5	147	188	151		
	ppm of P	32	41	33		
	BRAY II lb/A P as P_2O_5					
	ppm of P					
EXCHANGEABLE CATIONS	OLSEN lb/A P as P_2O_5					
	ppm of P					
	CALCIUM* lb/A	3174	2838	5008		
	ppm	1587	1419	2504		
	MAGNESIUM* lb/A	648	442	706		
	ppm	324	221	353		
	POTASSIUM* lb/A	374	602	422		
	ppm	187	301	211		
	SODIUM* lb/A	26	34	26		
	ppm	13	17	13		
BASE SATURATION PERCENT						
Calcium %		64.51	50.79	67.06		
Magnesium %		21.95	13.18	15.76		
Potassium %		3.90	5.52	2.90		
Sodium %		0.46	0.53	0.30		
Other Bases %		4.70	6.00	5.00		
Hydrogen %		4.50	24.00	9.00		
EXTRACTABLE MINORS						
Boron* (ppm)		0.42	0.40	0.63		
Iron* (ppm)		122	183	189		
Manganese* (ppm)		46	73	25		
Copper* (ppm)		1.64	1.95	3.25		
Zinc* (ppm)		1.46	3.50	2.67		
Aluminum* (ppm)		728	789	831		
OTHER TESTS	Soluble Salts (mmhos/cm)					
	Chlorides (ppm)					
	Bray I P (ppm)	27	32	24		

* Mehlich III Extractable